

Fig. 1

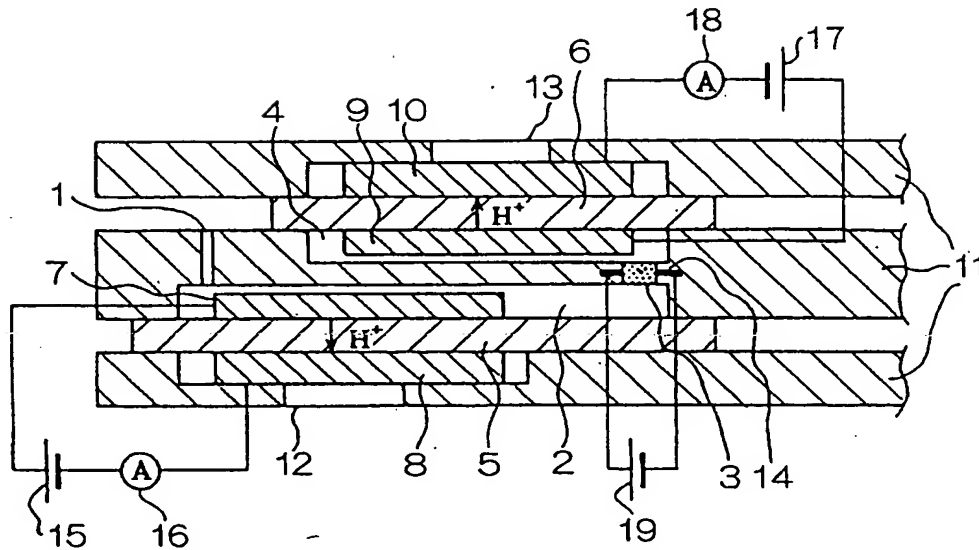


Fig. 2

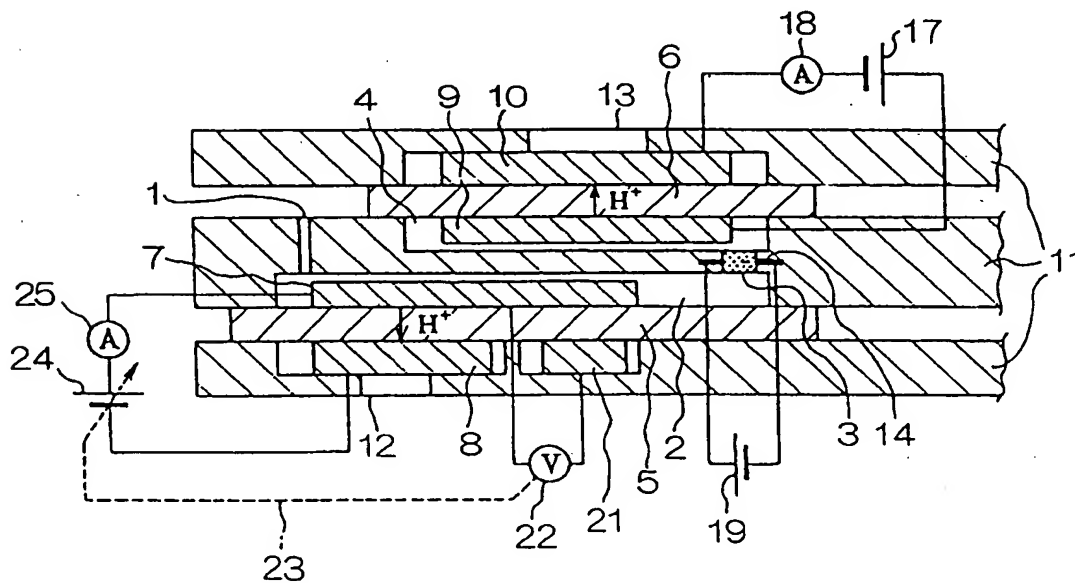


Fig. 3

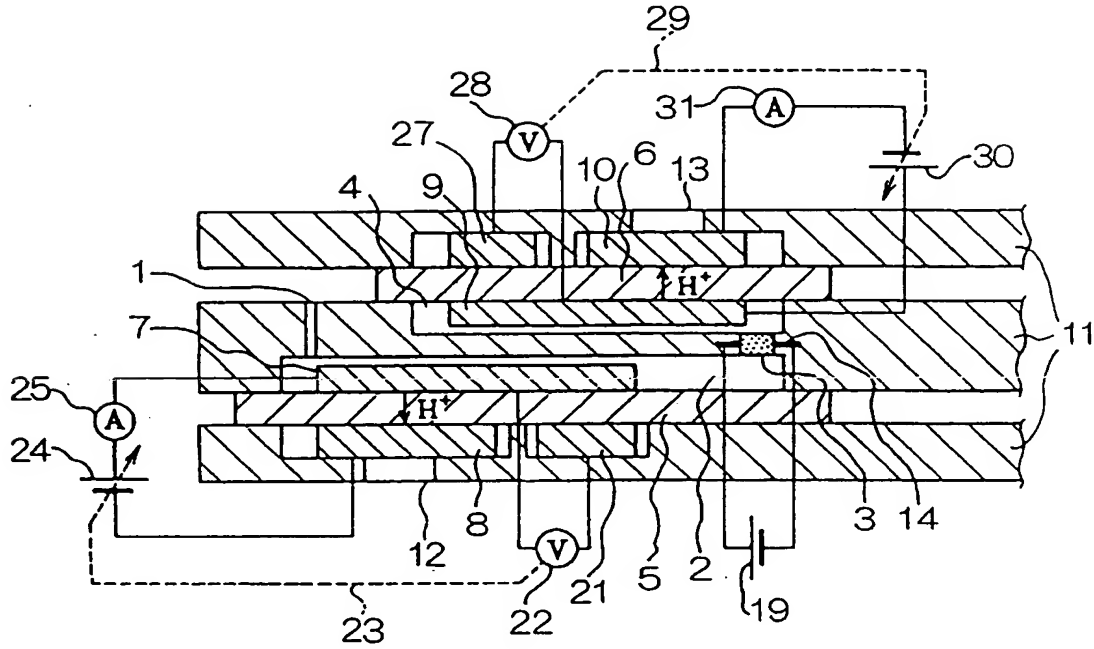
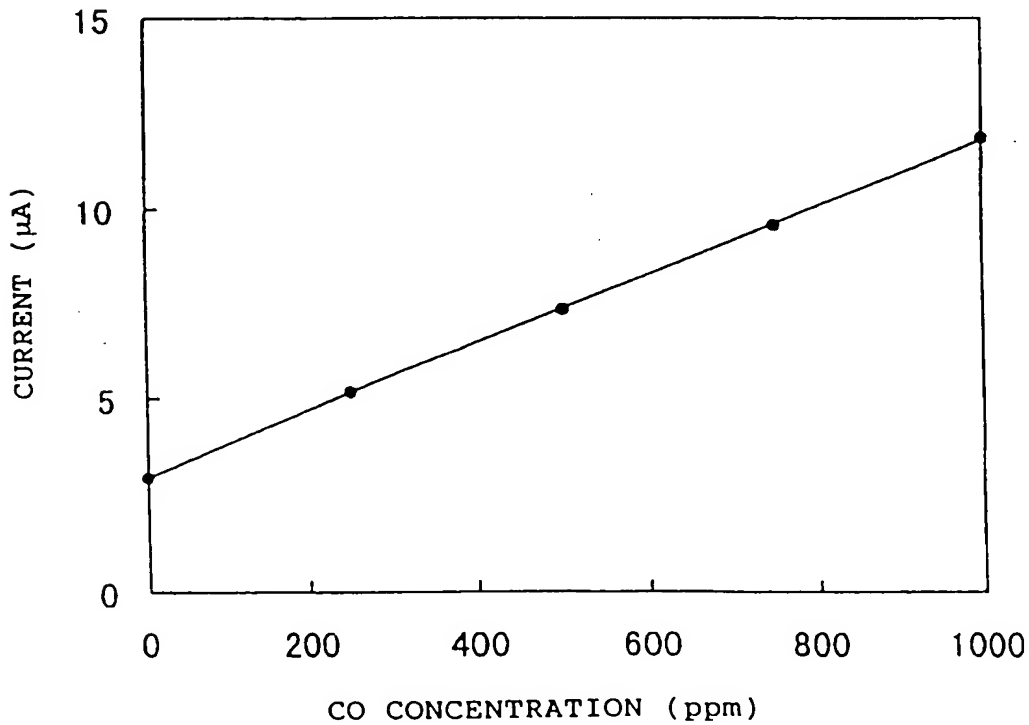


Fig. 4



The diagram shows a cross-section of a fuel cell assembly. It consists of a central electrolyte layer (1) with a proton-conducting layer (9) on top and a proton-conducting layer (8) on the bottom. A hydrogen pump (10) is located in the center, with a hydrogen inlet (4) and a hydrogen outlet (6). A hydrogen sensor (13) is positioned between the pump and the electrolyte. The assembly is supported by a substrate (11). A circuit is connected to the assembly, including a power source (34), a current meter (A), and a voltage meter (V). The circuit includes a switch (17) and a resistor (18). The assembly is also connected to a hydrogen source (24) and a hydrogen sink (25) via a hydrogen pump (23). The assembly is labeled with various components: 1 (electrolyte), 2 (catalytic layer), 3 (catalytic layer), 4 (hydrogen inlet), 5 (catalytic layer), 6 (hydrogen outlet), 7 (catalytic layer), 8 (proton-conducting layer), 9 (proton-conducting layer), 10 (hydrogen pump), 11 (substrate), 12 (catalytic layer), 13 (hydrogen sensor), 14 (catalytic layer), 15 (catalytic layer), 16 (catalytic layer), 17 (switch), 18 (resistor), 19 (catalytic layer), 20 (catalytic layer), 21 (catalytic layer), 22 (catalytic layer), 23 (hydrogen pump), 24 (hydrogen source), 25 (hydrogen sink).

Fig. 7

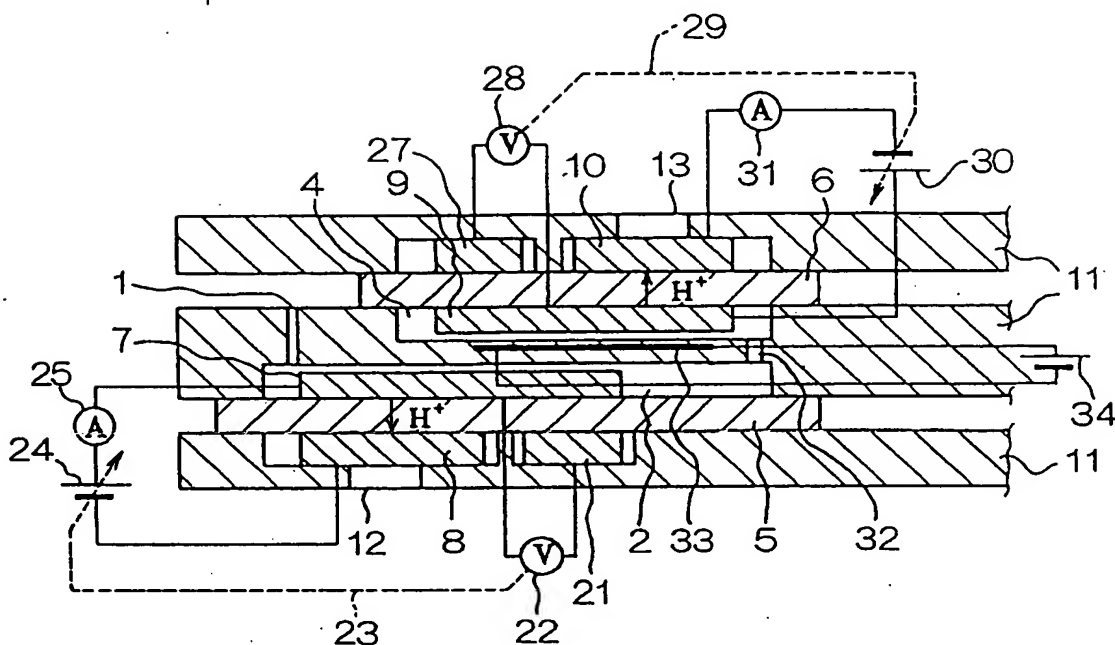


Fig. 8

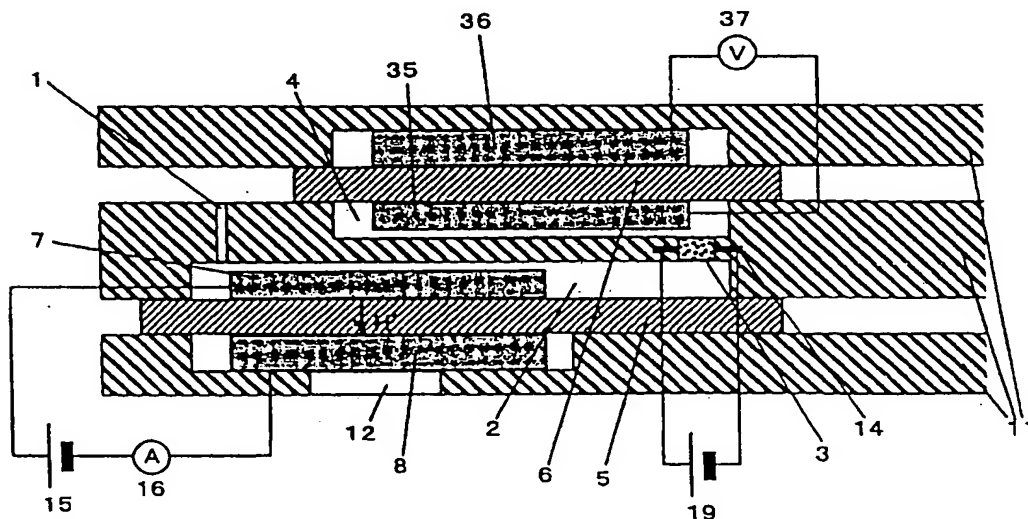


Fig. 9

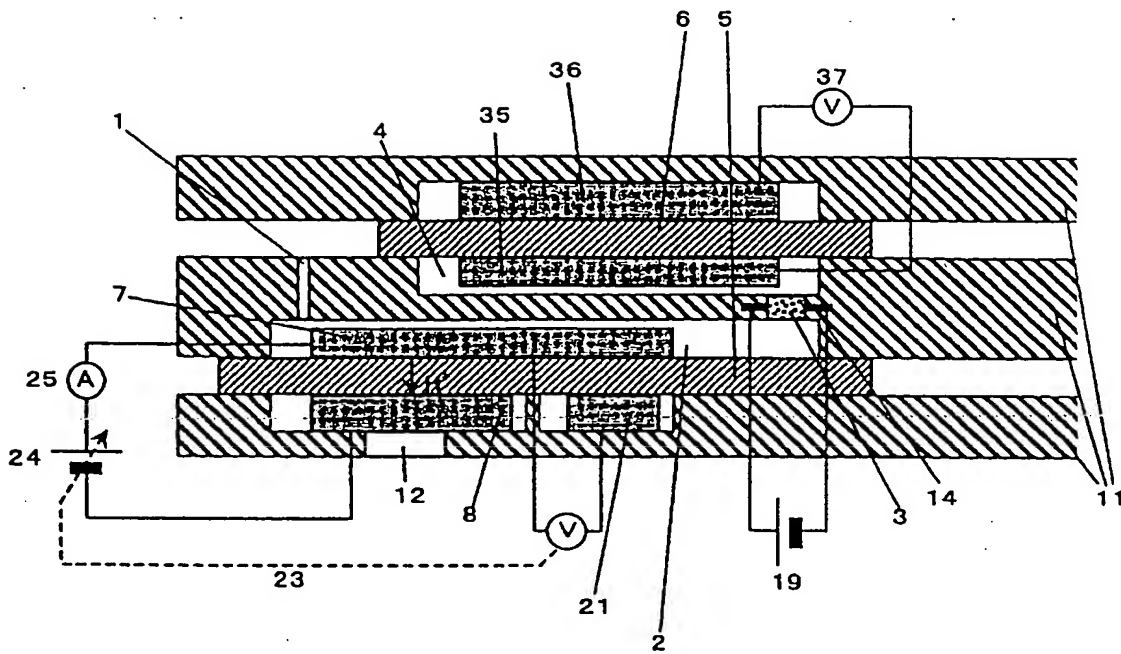


Fig. 10

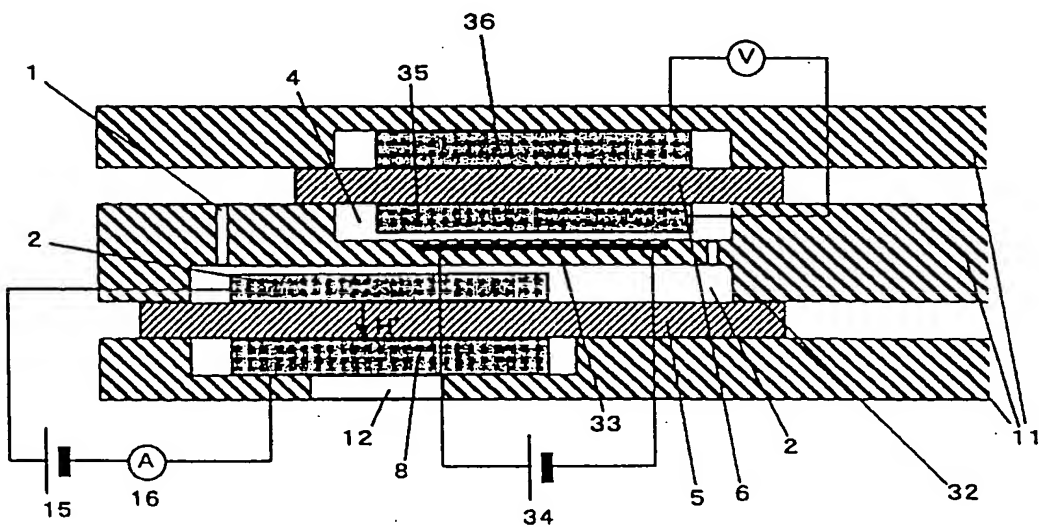


Fig. 11

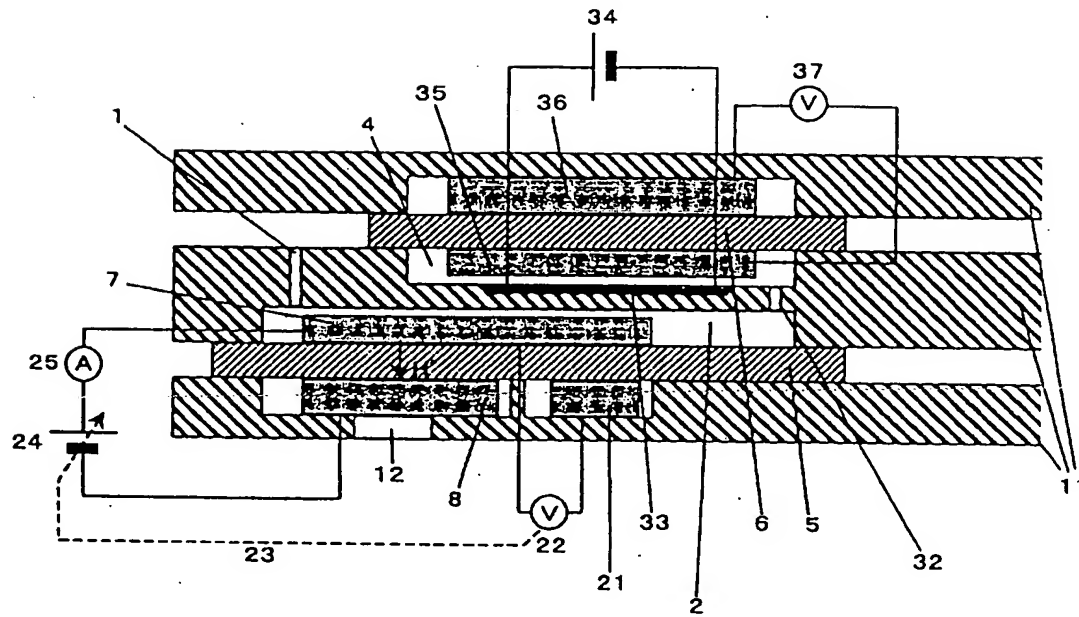


Fig. 12

